

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An arc tube for a discharge bulb in which both ends of a light emitting tube inserting electrodes respectively are sealed and a closed space having the electrodes opposed to each other and filled with a light emitting substance with a rare gas for starting is provided in the light emitting tube,

wherein the light emitting tube comprises translucent ceramics formed substantially cylindrically and has a ratio d/L of an outside diameter d to a whole length L ranging from 0.2 to 0.5,

wherein said both ends of the light emitting tube are sealed by a molybdenum layer, which bonds the light emitting tube to molybdenum pipes in which the electrodes are fixed and held respectively,

wherein each of said electrodes is formed by integrating a tungsten line and a molybdenum line with an end of said tungsten line opposed to an end of said molybdenum line; and

wherein said molybdenum line is welded to one of said molybdenum pipes.

2. (original): The arc tube for a discharge bulb according to claim 1, wherein the light emitting tube has a thickness of 0.25 mm to 1.2 mm.

3. (currently amended): An arc tube for a discharge bulb in which both ends of a light emitting tube inserting electrodes respectively are sealed and a closed space having the electrodes opposed to each other and filled with a light emitting substance together with a rare gas for starting is provided in the light emitting tube,

wherein the light emitting tube comprises translucent ceramics formed substantially cylindrically and has a parallel ray transmittance of 20% or less and a whole ray transmittance of 85% or more,

wherein said both ends of the light emitting tube are sealed by a molybdenum layer,
which bonds the light emitting tube to molybdenum pipes in which the electrodes are fixed and held respectively,

wherein each of said electrodes is formed by integrating a tungsten line and a molybdenum line with an end of said tungsten line opposed to an end of said molybdenum line; and

wherein said molybdenum line is welded to one of said molybdenum pipes.

4. (currently amended): An arc tube for a discharge bulb comprising a light emitting tube formed using translucent ceramics and having a ratio d/L of an outside diameter d to a whole length L ranging from about 0.2 to about 0.5,

wherein both ends of the light emitting ~~tube~~tube ~~have~~has electrodes inserted therein,

wherein said ends are sealed by a molybdenum layer, which bonds the light emitting tube to molybdenum pipes in which the electrodes are fixed and held respectively,

wherein each of said electrodes is formed by integrating a tungsten line and a molybdenum line with an end of said tungsten line opposed to an end of said molybdenum line;
and

wherein said molybdenum line is welded to one of said molybdenum pipes.

5. (original): The arc tube for a discharge bulb according to claim 4, wherein the light emitting tube has a substantially cylindrical shape.

6. (currently amended): An arc tube for a discharge bulb comprising a light emitting tube, formed in a substantially cylindrical shape using translucent ceramics and having a parallel ray transmittance of 20% or less and a whole ray transmittance of 85% or more,

wherein both ends of the light emitting ~~tubes~~tube ~~have~~has electrodes inserted therein,

wherein said ends are sealed by a molybdenum layer, which bonds the light emitting tube to molybdenum pipes in which the electrodes are fixed and held respectively,

wherein each of said electrodes is formed by integrating a tungsten line and a molybdenum line with an end of said tungsten line opposed to an end of said molybdenum line;
and

wherein said molybdenum line is welded to one of said molybdenum pipes.

7. (previously presented): The arc tube for a discharge bulb according to claim 1,
wherein said outside diameter d ranges from 2.0 mm to 4.0 mm, and
wherein said whole length L ranges from 6.0 mm to 14.0 mm.